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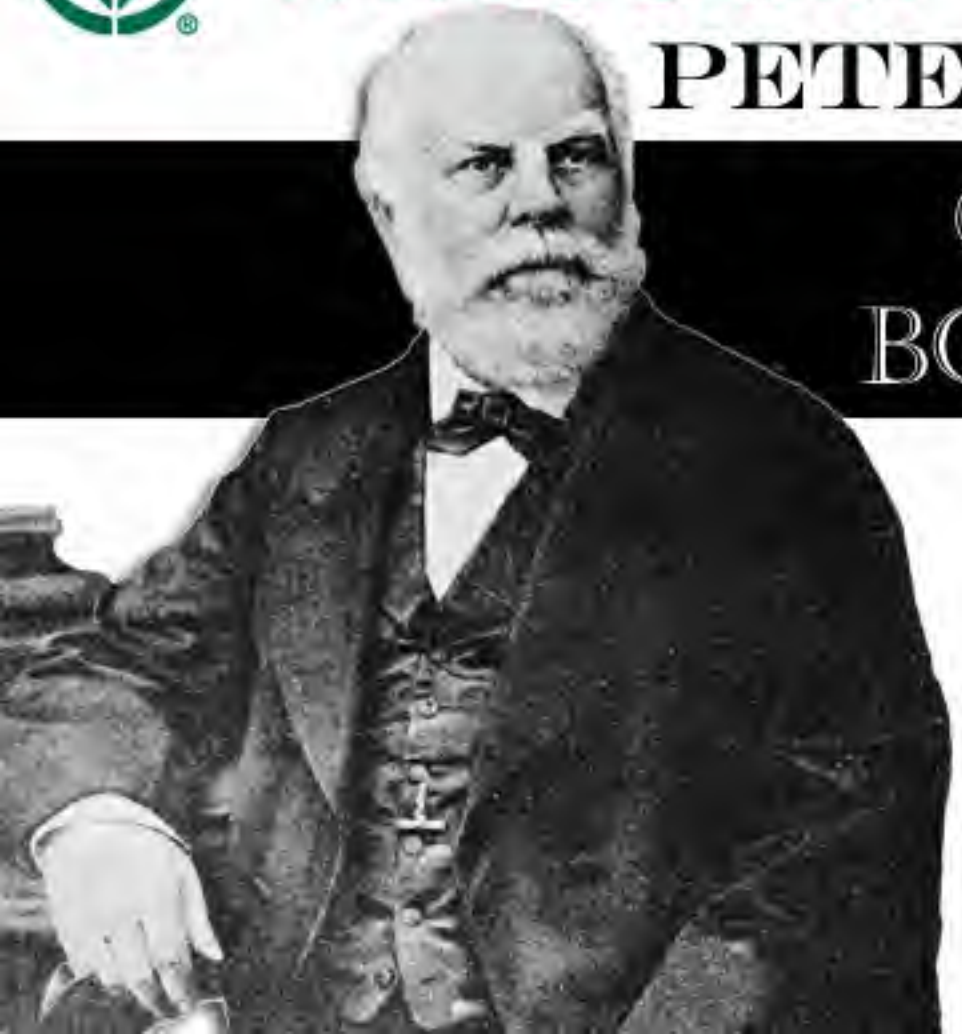


Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Echinocactus

Frankfurt. Febr. 1857

1598

Ech. gruellianus (Coll Jacob.

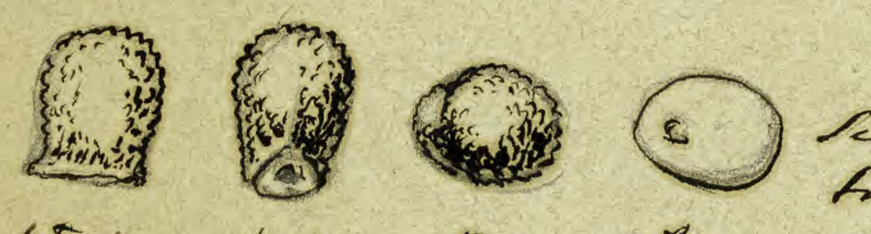
seed 0.7 brown, smooth shiny; raphoid; deep ventral hilum, large oval, surrounded by a torus, dark or blackish, minutely verrucose rim, lower part of back carinate;

Embryo about erect straight exalbuminous; cotyledons parallel extremely small, scarcely perceptible

Ech. mamillosus (Coll Jacobi)

seed 0.6 mm high a broad; brown, minutely but distinctly verrucose; hilum basal, large, spongy light brown; triangular groove, with a shallow impression in the middle and a deeper hole anteriorly and a smaller one centrally; testa brown, brittle; seed with a slight beak anteriorly.

Embryo exalbuminous; almost globose; cotyledons parallel, more distant than in last



Ech. tortuosus (Coll Jacobi)

seed 0.6 – 0.65 mm digitiform; ovate, truncate at broad base; sometimes obliquely slightly curved anteriorly; black, verrucose; hilum basal, large, ovate – suborbicular.

Ech. Scopa (Coll Jacobi)

0.4 – 0.45 digitaliform; subglobose, hilum basal, large, ovate, or somewhat triangular with 2 pores (not holes) one central the other anteriorly; testa black, brittle finely verrucolose.

Ech. teniflorus. see any Echinocereus

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7

Cereus Ottonis Lehm
Solonis Calt
(Sept 1851)

testa

naked embryo

top view

usual form

rotyl. sometimes oblique

reexamined 1852 — same result

1599

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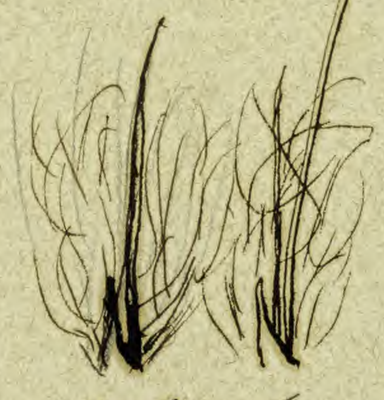
Malacocarpus

1600

Frankfurt Febr 18th 3

scales of fruit



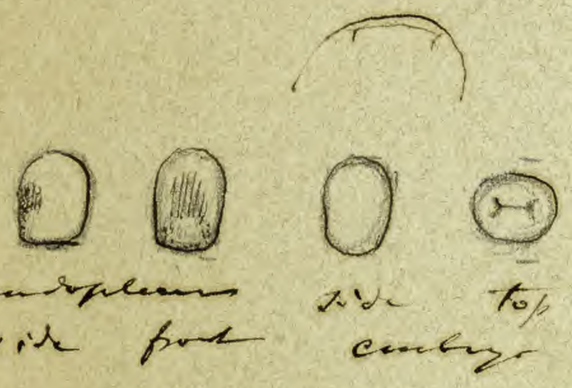
scales of persistent flower tube with 1 or 2 spines

scales bearing in the axills 1 or 2 spines and

Mal. Pellovii (Colla Jacobi)

fruit a globose red (fleshy or juicy) berry, evidently from a woolly vertex, woolly at base; beset with triangular-lanceolate scales which bear tufts of loose white wool; flower persistent tube covered with linear lanceolate ~~aristate scales, bearing~~ abundant wool in axills. Whole ~~fruit resembling absolutely like~~ that of ~~Malacocarpus~~ Echinocactus texensis /

side front top base



endopleura side front side top embryo

side front top base

Seed 0.5–0.65 digitaliform; obovate subglobose somewhat compressed; a little protracted in front, almost carinate; brown, ~~with~~ slightly verrucose; brittle. — hilum basal, large, triangular produced at anterior end, with a slight prominence in the centre, and a small hole forward, like *E. Popa*

Embryo 0.4 l. long; thickness of endopleura considerable on the ventral side and extending to the base; embryo oval exalbuminous; cotyledons erect, small, parallel, oblong rarely distinct. —

Mal. arcuatus (Colla Jacobi)

seed 0.6–0.7 l. long, brown, slightly verrucose; entirely similar to the last; hilum more convex, young, and only an anterior depression or hole visible —

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Hort Lyck. Aug 1857

Malacocarpus *corynodes* *acutatus* & *Cumingii*
have the same kind of yellow flowers, 1½
inch long and wide with very numerous
petals & red stigmata — They seem distinct

M. Sellowianus, however, appears
distinct. They scarcely ought to be
separated from Echinocactus

M. Cumingii has longer, and
corynodes and *acutatus* shorter spines

1601

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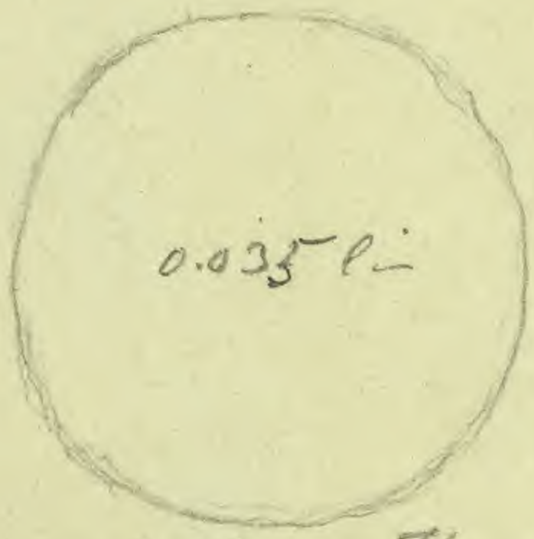
Echinocystis lobata Torr. & Gray.

ex Sem Sencke coll St Louis,

June 22 1864

Pollen x 415

X 10



0.035 l.

perfectly smooth

X 60

HERBARIUM OF THE MISSOURI BOTANICAL GARDEN
ex FELICE

1602

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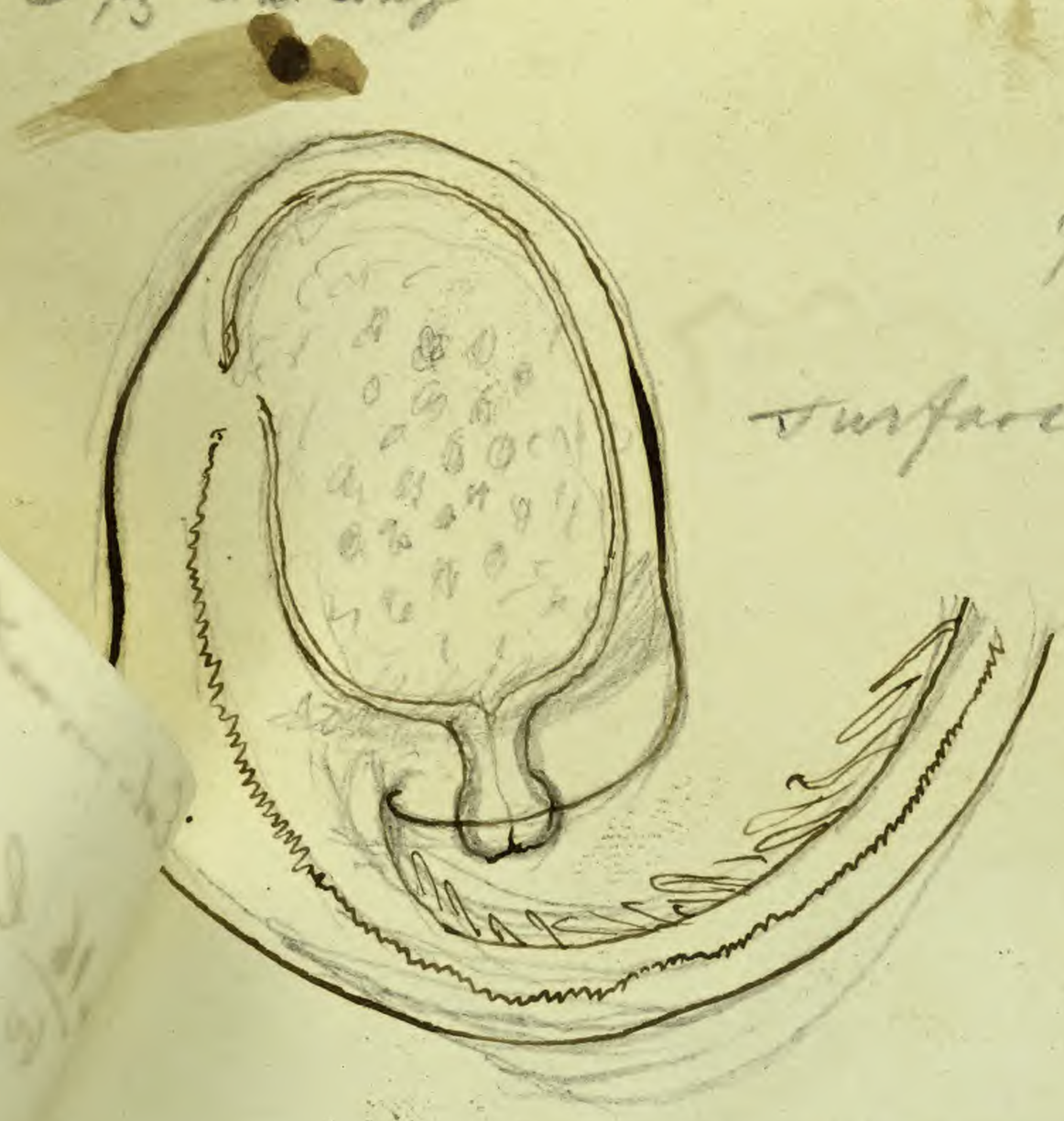
.21/60 = 1/3 lin. long



Ech. Ottonis 9 May 1860

1603

Pollen 16/412 lin

Surface of oval rough
a little after fruiting
female several
times longer than
ovulum, bruised

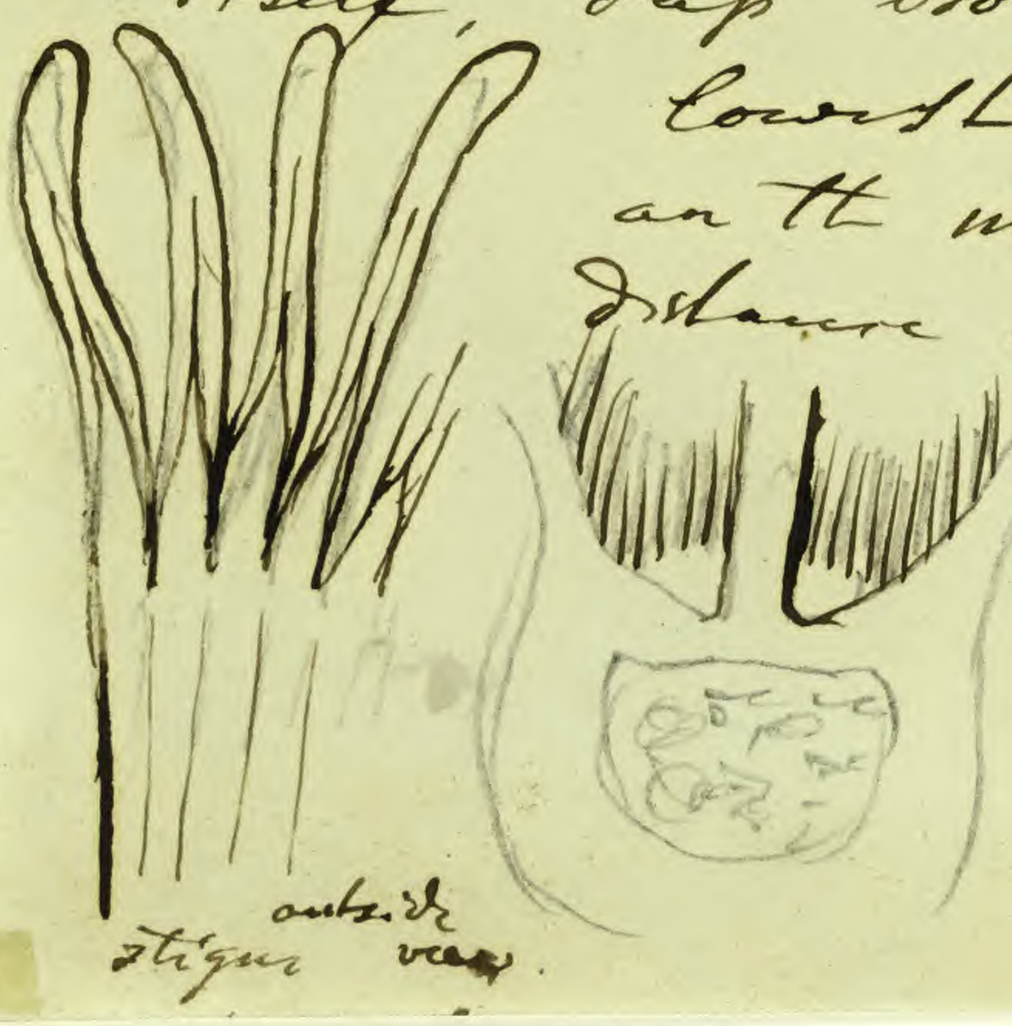
Ech. Ottonii Gubel 9 May 1860

scales on ovary — & lower part of tube
very numerous, lanceolate subulate, green
fleshy, with brown long wool — &
bright red brown erect ~~spin~~ bristly spikes
— axils

15 stigmata long, half as long as the style
itself, dusp bluish purple,
lowest part stigmatose only
on the margin or for a short
distance not at all.

channeled tubular

tube flat on stam — for
near the base



outside
stigm very.

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APOTHECARY & PHARMACEUTIST,

Marble Building, Cor. Fourth & Olive Sts., St. Louis, Mo.

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Marble Building, Cor. Fourth & Olive Sts., St. Louis, Mo.

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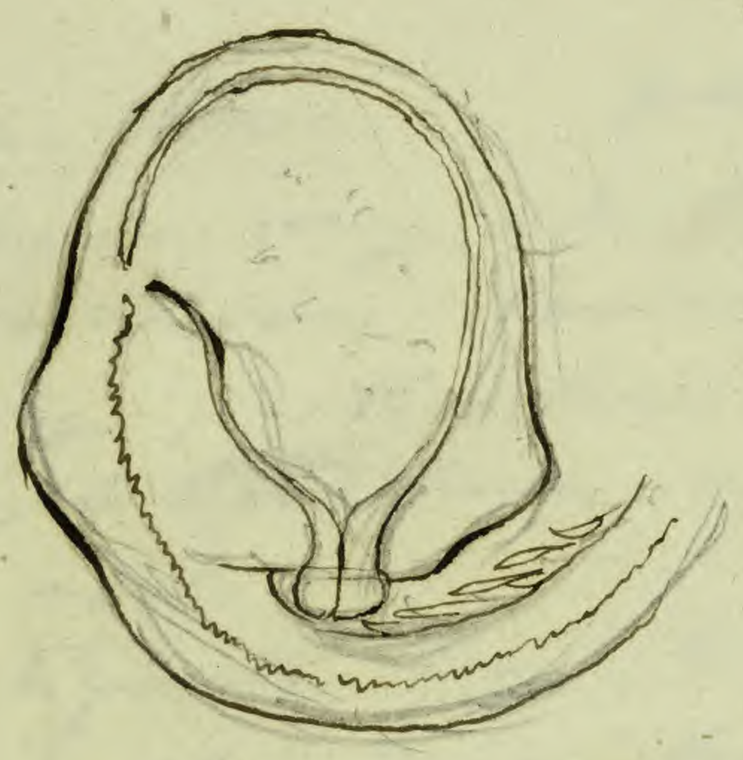
Echinocactus Ottonis

Ottonis 16 Linn Cy
60

Hort Gochel
May 16 1860

Cory, Branchy funiculi



1604

stigm. ob. vesp.

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ENNO SANDER,

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CORNER OF SECOND AND WALNUT STREETS,

UNDER BARNUM'S HOEEL,

SAINT LOUIS, MO.

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Ech. Ottonis
5 rules on
my numerous
plenty with
bright red brown
1 axile
15 th Ech

0 cm 1 2 3 4 5 6 7 8 9 10
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Echinocactus Ottonis

Seedling of 1859

in Bloom July 13. 1863

& cent-petals deep red stigmats,

ovalish, strongly barbellate

1605

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Echinocactus Ottonis
Terscheckianus
Mammillaria

E. Morelli

1606

are now in flower (May 16/1860) in Jacobi's Garden. The flowers come from the axills of the last tubercles of last year, the lower spines of which were developed some time since, the upper ones, or those at the base of the brownish, more recently shrivelled, the same property (as note 1857)

Flowers not central, but in a circle around the younger growth.

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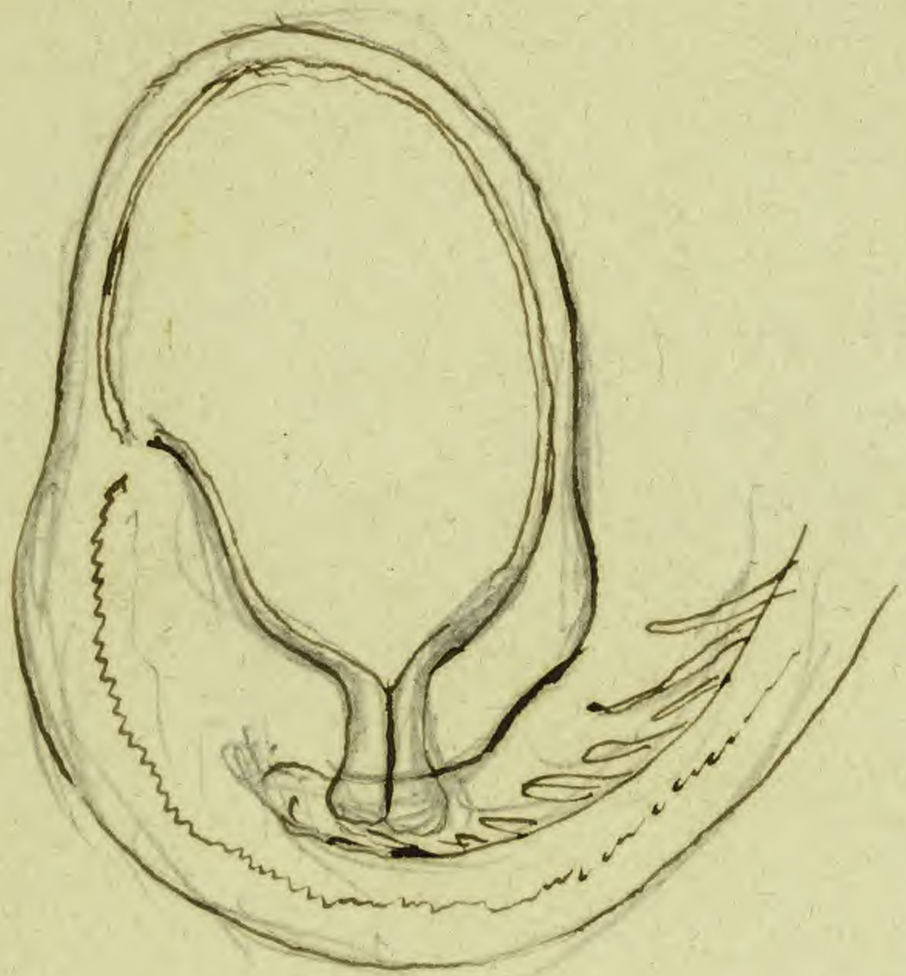
Echinocactus Texensis Hopf. & C.

Arlington $\frac{20}{60}$ Linley Fort Gibson May 16 1862



1607

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UNDER BARNUM'S HOEEL,

SAINT LOUIS, MO.

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Marble Building, Cor. Fourth & Olive Sts. St. Lou

1608

Ech. mammillosus
May 1860
14/60 length of animal

order of the
order of
my thanks
Disciple of
Bibliothèque
Bibliothèque under
Bibliothèque order

Ech. mammillosus
May 1860
Spine 9

30-35 yellow stiff
obtuse
25 specimens
with reddish
tube extremely
orders of
my thanks
Disciple of
Bibliothèque
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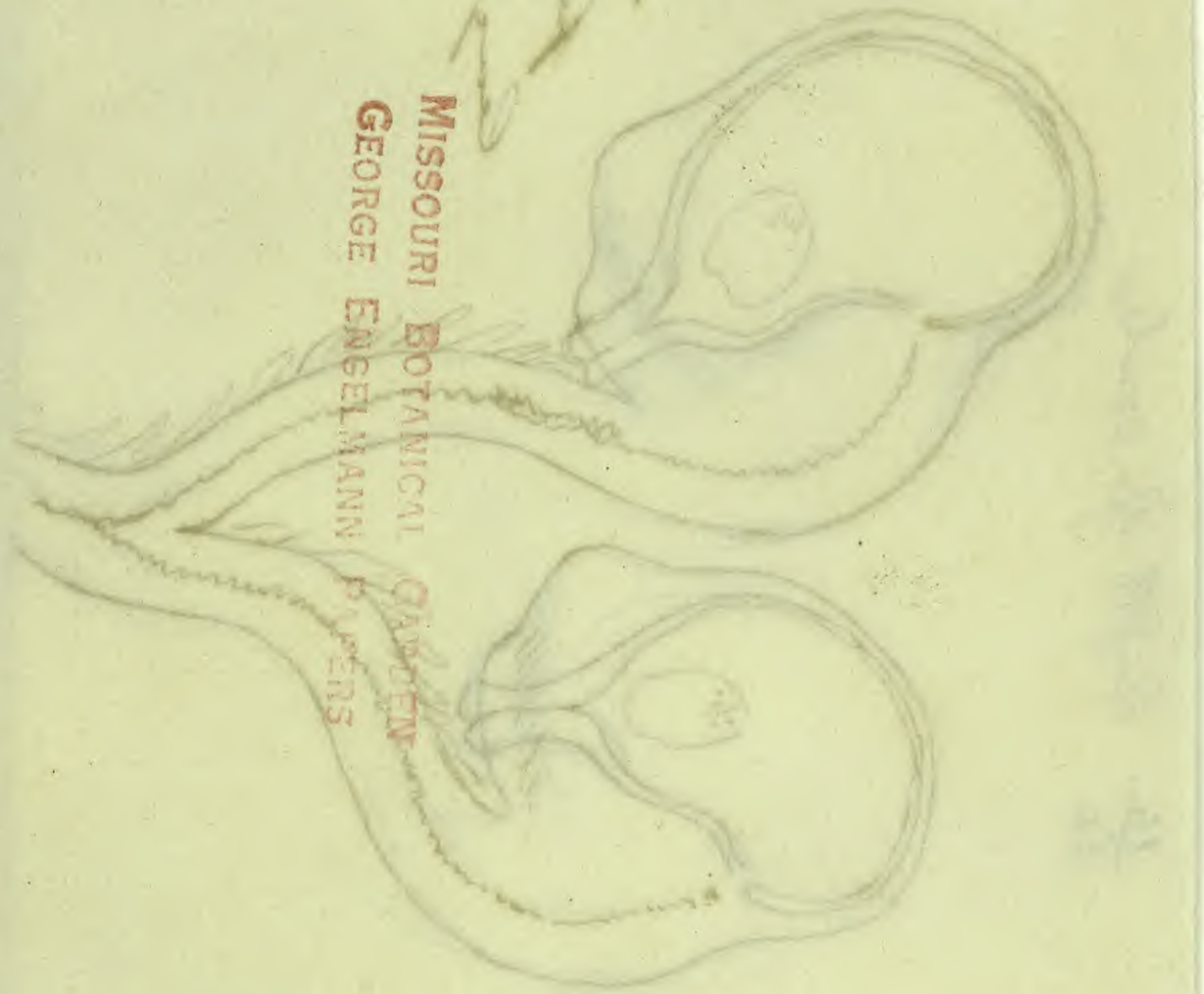
LEX. LEITCH,

ARY & PHARMACEUTIS

g. Cor. Fourth & Olive Sts., St. Louis, Mo.



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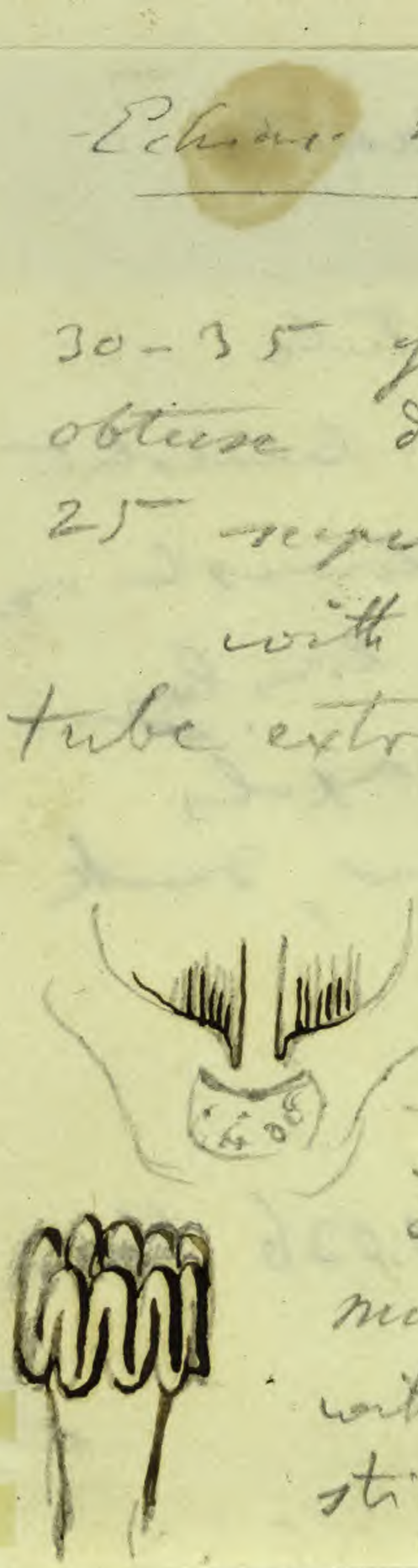
Echeveria mammulosa

Pocbil 9 May 1860

30-35 yellow satin like oblong, obtuse deltoid-lanceolate, or ovate petals, 25 serpens petaloid scales with reddish midrib cuspidate tube extremely short, suddenly widens & stamens almost from the base upper shallow part of tube free; stamens compact; [illegible] manner. Style first exserted over the stamens much shorter than petals; pale yellow with a erect, short bluish purple stigmatic abt 1 line long ovate



1609

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ovary and lower part of tube
with very minute scales, lanceolate,
subulate, not spiny, towards ovary
1/2 — 1 li, upper ones 1-3 li, lower
with abundant wool — axils
and a few white or longer, dark
erect spines.

Bulb globose in water

$\frac{15}{412} = 0.036$ li

Echs. Ottonis near Tenuicuspidata

but flow Corym
21 lines

Tubes or very more
numerous, with
3–6 brown scales
and abundance of
long brown wool
inside
base of tube & on of
stam. purple
nake spare very
short
stam. to put 6 Clay
Tube short and wide
deep red
16 subcrect purple
velvety stigmat
2½ lines long
40–50 petals angustate
acute
Bells 15–17 Cm
412

" H. 17 Cm long

flows, with 2–3
brown scales
and much less
brown wool

red spare much small

1610

10 .... slender
2. inch Corm a C. tall
short stigmats

30–35 petals, obtuse,
ovate
Bell same

M. W. ALEXANDER,

SOUTH-EAST CORNER OF FOURTH AND MARKET STREETS,

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Echinocereus coryrodes 1611 Hort Jacob May 24 1860.

Flowers abt 15–16 lines long, bodily expanding right in the centre woolly of the plant, ventral ones very very small, with tube with lanceolate subulate scales which terminate in a dark brittle point, bearing in the axil a dark wool white below, light brown above, and a single elongated bristly spine

abt 20 linear lanceolate dark purple upper sepals

25–30 lanceolate bodily red petals stamens from the base of tube, red at base, for abt 3 or 4 lines; style glaucous with 9 red stigmas

Pollen globose $\frac{12}{270}$ lines diameter = $\frac{16}{412}$ $\frac{12}{60}$

Ovule $\frac{17}{60}$ long

scale of ovary

Ovulum of *Echi coryrodes* May 24 1860

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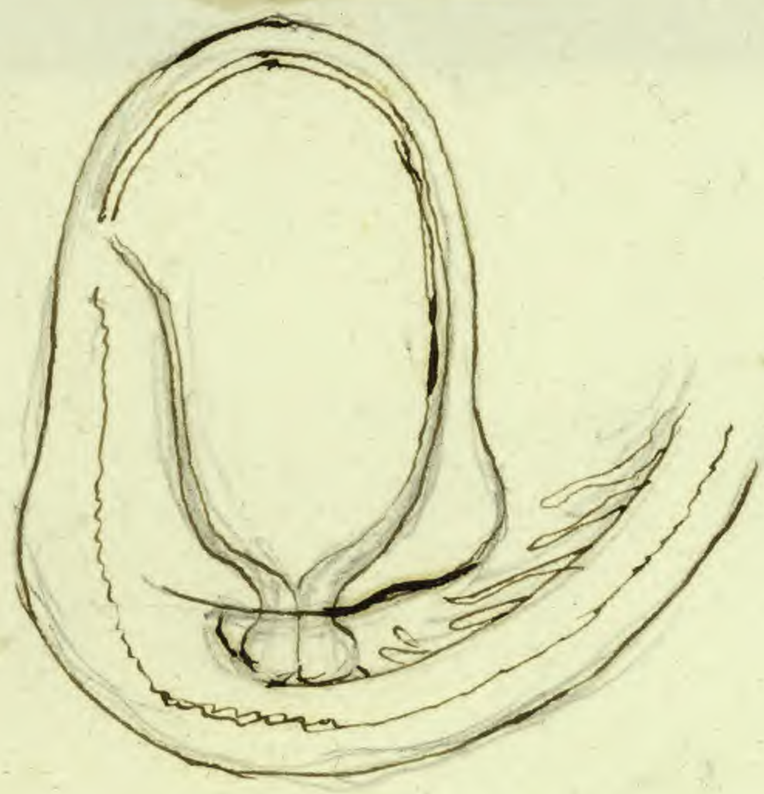
60



Ovulum of
Echeveria corymbosa
May 24 1860

1612

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1613

Echi. Sellowii

Hort Goebel
May 1860.

Sepals of ovary & tube subulate
from triangular base, fleshy, with a
dark red spinous point or bristle
bearing in the axil a short cinnamon
brown wool (envelopg the lower part
of flower) and a single long red
brown spine
upper Sepals petaloid, oval with the hard
stiff red brown pointed resp.
ved stigmata 8
Pollen elle $\frac{16}{412}$ li

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Echinocactus subinermis Lemaire 1839

Sem ex Hort Seadke Leipzig 1857 – Stans ill 1859 – fl. 1864 Jan 21–24

Flowers centrally from the year's tubercles; stamens coloured. 2 inches long, 2 1/4 in diameter.

Sepals of ovate ovary numerous, green lanceolate, beardy in the axils dense long wool, and often a ragged bristle, dark red, 2 lines long

Sepals of tube, lower ones about 40, lanceolate, greenish, reddish, with long dense wool in the axils and 1 to 3 bristles, upper ones 4–5 lines long, 2 and 3 in number, lower ones shorter and fewer,

Interior sepals 18–21 without axillary productions, incurved obtuse, lacerate.

Petals 21–26 exterior ones obtuse, ~~obtuse~~ obscurely mucronate, interior ones acute, acutish

Tube extremely short; naked space not more than 1/3 line long (erect cylindric) antheriferous part spreading, 2/3 line long, ~~and only~~ the smallest of any Echinocactus examined by me –

Stamens yellow, 6 lines long; anthers over 1 line long, Pollen 0.035 globose smooth

Style pale yellow 9 l. long, reflexed; 9–11 velvety deep violet-purple stigmata, erecto-patulous, obtuse –

Ovule globose truncate, on simple hairy funicle, about the own length

1614

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Schizonotus Bourn wool, ~~Fitte~~ ndstyn. Ost Mary

68. t. 306

1615

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Eh. tenuiflorus. B. Mag. 68. 3963 (1842
ft. 6 or 8 — — woolly at base nd stip.

1616

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Kew Sept 1869

Echinocactus Scopa Bot Mag 5443 1617

11 radiis rubris nigrotis — top flowers

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Herb Martii, Aug 1869

Echinocactus

1618

Ins Grande da Sul

sent by " Padre Joao de Sta Barbara

a small globose plant shrivelled, 1½–2 cent diam

perhaps about 10 ribs, sharp, and rounded, brownish

black spines 12–15 extreme 3–8 mm long, 1–3 or 4 interior

stouter 8–15 mm long, all flexuous, curved especially

downward, – flower enveloped in light brown wool, with dark

bristles.

belongs to E. Tenuispinus group –

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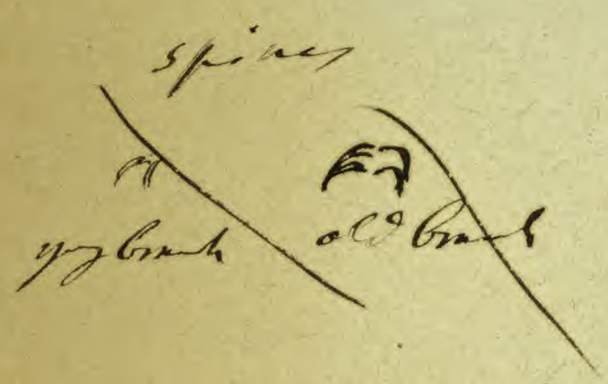
spicy



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de Jaeneng's April V 1869

Echinocactus mammulosus Kar. Black seed

ξ. submammulosus brown one

(Jaeneng — Arbon)

1619

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Hort Upsendorff, Paris 7/4 69

Echinops ritro sphaerocephalus a fine Cynaroid plant
10—12 inches high, with spikes curved upwards,
long and stout, 2 inches long, said to have a
true Echinops ritro flavour like E. Exaltatus (or rather
saw the same at Guedeney)

1620

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